Filed: December 4, 1997

UNITED STATES COURT OF APPEALS

FOR THE FOURTH CIRCUIT

Nos. 96-2003(L)
(CA-92-1879-0-17)

United States of America,

Plaintiff - Appellant,

versus

Hoechst Celanese Corporation,

Defendant - Appellee.

O R D E R

The Court amends its opinion filed October 27, 1997, as follows:

On page 3, section 2, lines 11-12 -- "Douglas W. David" is corrected to read "Douglas W. Davis."

On page 24, second full paragraph, line 7 -- "HCC's" is corrected to read "HCC."

For the Court - By Direction

/s/ Patricia S. Connor

Clerk

PUBLISHED

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UNITED STATES OF AMERICA,
Plaintiff-Appellant,

v.

HOECHST CELANESE CORPORATION,
Defendant-Appellee.

CHEMICAL MANUFACTURER'S ASSOCIATION; CORPORATE ENVIRONMENTAL ENFORCEMENT COUNCIL; NATIONAL ASSOCIATION OF MANUFACTURERS; PHARMACEUTICAL RESEARCH AND MANUFACTURERS OF AMERICA; COMMONWEALTH OF VIRGINIA; VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY; SCIENCE & ENVIRONMENTAL POLICY PROJECT; TEXAS INSTITUTE FOR ADVANCEMENT OF CHEMICAL TECHNOLOGY INCORPORATED; NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS; TEXAS NATURAL RESOURCE CONSERVATION COMMISSION (TNRCC),
Amici Curiae.

No. 96-2003

UNITED STATES OF AMERICA,
Plaintiff-Appellee,

v.

HOECHST CELANESE CORPORATION,
Defendant-Appellant.

CHEMICAL MANUFACTURER'S ASSOCIATION; CORPORATE ENVIRONMENTAL ENFORCEMENT COUNCIL; NATIONAL ASSOCIATION OF MANUFACTURERS; PHARMACEUTICAL

No. 96-2051

RESEARCH AND MANUFACTURERS OF AMERICA; COMMONWEALTH OF VIRGINIA; VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY; SCIENCE & ENVIRONMENTAL POLICY PROJECT; TEXAS INSTITUTE FOR ADVANCEMENT OF CHEMICAL TECHNOLOGY INCORPORATED; NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS; TEXAS NATURAL RESOURCE CONSERVATION COMMISSION (TNRCC),
Amici Curiae.

Appeals from the United States District Court
for the District of South Carolina, at Rock Hill.
Joseph F. Anderson, Jr., District Judge.
(CA-92-1879-0-17)

Argued: May 5, 1997

Decided: October 27, 1997

Before NIEMEYER and MOTZ, Circuit Judges, and STAMP,
Chief United States District Judge for the
Northern District of West Virginia, sitting by designation.

No. 96-2003 affirmed in part and reversed and remanded in part and No. 96-2051 affirmed by published opinion. Judge Motz wrote the opinion, in which Chief Judge Stamp joined. Judge Niemeyer wrote separately, concurring in part and dissenting in part.

COUNSEL

ARGUED: David Carlisle Shilton, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D.C. for Appellant. Andrea Bear Field, HUNTON & WILLIAMS, Washington, D.C. for Appellee. **ON BRIEF:** Peter Coppelman, Acting Assistant Attorney General, Environment & Natural Resources Division, John A. Bryson, Paul G. Wolfteich, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D.C.; Charles Garlow, Mary Ellen Levine, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Washington, D.C.; David Savage, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Atlanta, Georgia, for Appellant. David F. Geneson, Lee A. Casey, HUNTON & WILLIAMS, Washington, D.C.; Douglas W. Davis, John Charles Thomas, Claudia T. Farr, HUNTON & WILLIAMS, Richmond, Virginia, for Appellee. Paul G. Wallach, Wendy E. Anderson, HALE & DORR, Washington, D.C.; David F. Zoll, General Counsel, James W. Conrad, Jr., Assistant General Counsel, CHEMICAL MANUFACTURERS ASSOCIATION, Arlington, Virginia; Jan S. Amundson, General Counsel, Quentin Riegel, Deputy General Counsel, NATIONAL ASSOCIATION OF MANUFACTURERS, Washington, D.C.; Russel A. Bantham, General Counsel, Marjorie E. Powell, Assistant General Counsel, PHARMACEUTICAL RESEARCH AND MANUFACTURERS OF AMERICA, Washington, D.C. for Amici Curiae Chemical Manufacturers of America, et al. James S. Gilmore, III, Attorney General of Virginia, Roger L. Chaffee, Senior Assistant Attorney General, Mary Jo Leugers, Assistant Attorney General, OFFICE OF THE ATTORNEY GENERAL, Richmond, Virginia, for Amici Curiae Commonwealth of Virginia, et al. Scott M. DuBoff, John W. Heiderscheit, III, WRIGHT & TALISMAN, P.C., Washington, D.C., for Amici Curiae Science and Environmental Policy Project, et al. Geoffrey S. Connor, General Counsel, TEXAS NATURAL RESOURCE CONSERVATION COMMISSION, Austin, Texas, for Amicus Curiae Commission.

OPINION

DIANA GRIBBON MOTZ, Circuit Judge:

In 1984, pursuant to its authority under the Clean Air Act, the Environmental Protection Agency (EPA) promulgated regulations governing fugitive emissions of benzene, a carcinogenic pollutant posing significant risk to human health. This case involves the proper interpretation of those regulations, which impose numerous preventative and reporting requirements on industrial plants emitting benzene, but exempt plants designed to use less than 1,000 megagrams of benzene a year from these requirements. The issue here is whether a plant owned by Hoechst Celanese Corporation (HCC) is exempted from the requirements of the regulations. If not, that plant (one of the largest sources of fugitive benzene emissions in the United States from 1987 through 1993) indisputably violated the regulations in numerous respects.

The district court sustained EPA's interpretation of its own regulations, an interpretation that did not exempt the HCC plant. United States v. Hoechst Celanese Corp., 964 F. Supp. 967, 971-76 (D.S.C. 1996). Nevertheless, because the court concluded that the EPA did not provide HCC with "fair notice" of EPA's interpretation, the court declined to find HCC liable for any regulatory violations. Id. at 979-986. Both EPA and HCC appeal. In most respects, we affirm the judgment of the district court. That court correctly concluded that EPA's interpretation of its own regulations is entitled to deference. The district court also correctly held that EPA did not initially afford HCC fair notice of that interpretation and so the company cannot be held liable for violations of the regulations during the period (1984 to 1989) when it lacked fair notice. However, the court erred in concluding that HCC could rely on a fair notice defense for violations that occurred after 1989 -- when EPA provided the company with actual notice of EPA's interpretation of the regulations. Accordingly, we reverse the judgment of the district court in this single respect and remand the case for further proceedings consistent with this opinion.

I.

The United States, on behalf of EPA, initiated this action against HCC for alleged violations of the National Emission Standard for

Equipment Leaks (Fugitive Emission Sources) of Benzene (NESHAP or regulations), 40 C.F.R. pt. 61, subpts. A, J, and V (1996), at HCC's Celriver plant in Rock Hill, South Carolina. The NESHAP provides controls on the amount of benzene that can be emitted into the atmosphere. EPA propounded these controls because it concluded that they could substantially "reduce the estimated annual incidence of leukemia" for persons living within 20 kilometers of plants with equipment that leaked benzene -- roughly twenty to thirty million people. NESHAP preamble, 49 Fed. Reg. 23, 498, 23,501 (1984). Specifically, the NESHAP requires industrial plants that are designed to produce, use, or otherwise have in service benzene to monitor equipment regularly for leaks, repair leaks promptly, and install equipment that prevents, captures, or destroys benzene emissions. The regulations include reporting and recordkeeping requirements and provide that violations are to be punished by civil penalties.

The regulations, however, exempt "[a]ny equipment in benzene service that is located at a plant site designed to produce or use less than 1,000 megagrams of benzene per year." 40 C.F.R. § 61.110(c)(2) (1996) (emphasis added).**1** The exemption reflects EPA's conclusion that the benefit achieved by regulating small volume users of benzene does not justify the cost involved. See NESHAP preamble, 49 Fed. Reg. at 23,510. The question that divides the parties is what does "use" mean in the exemption.

The EPA defines "use" broadly to mean utilization, employment, or putting in place; this definition includes but is not limited to "consumption" of benzene, i.e., the overall amount needed to keep processes operational. The Celriver plant was designed to utilize benzene as a "quench" to cool hot ketene gases and as a "reflux agent" to help separate water and other compounds from acetic anhydride and acetic acid; after each of these uses the benzene was cooled, purified, and then recirculated as a "quench" or "reflux agent." Under EPA's definition of "use," counting each time benzene circulated through pipes and valves capable of leaking, the Celriver plant was designed to "use" more than a million megagrams of benzene a year, and was not exempt from the NESHAP. Indeed, the Celriver plant not only "used" vast amounts of benzene, it also leaked substantial amounts of the car-

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1 One megagram is equivalent to approximately 2,200 pounds.

cinogen: as the district court noted, "the Celriver plant ranked in the top 5% of all plants reporting benzene fugitive emissions in every year between 1987 and 1993." Hoechst Celanese, 964 F. Supp. at 974.

Nevertheless, HCC claims the Celriver plant was exempt from the NESHAP. The company asserts that "use" in the exemption has only a single narrow meaning -- "consumption." Since the Celriver plant continually recycled benzene, the total quantity it "used," under the company's theory, never exceeded 1,000 megagrams a year and thus the plant qualified for the exemption under 40 C.F.R. § 61.110(c)(2). The company concluded that the exemption was self-executing and for this reason HCC neither filed reports for the Celriver plant nor complied with any of the monitoring or other requirements of the regulations.

Because HCC never applied for an exemption for the Celriver plant or filed any reports as to its benzene usage, EPA did not become aware of the possibility of substantial benzene emissions at the Celriver plant until 1989. At that time, EPA's Region 4 office, which exercised enforcement authority over plants located in South Carolina, expressly notified the company in writing that if "benzene is recycled or reused in any process . . . the total cumulative flow through the process rather than net benzene consumption or usage" is to be counted as "use" of benzene for purposes of the regulations. After further communications between the parties, EPA determined that the Celriver plant had violated the NESHAP and so initiated this action.

EPA alleged that HCC, at its Celriver plant, violated NESHAP leak detection and repair requirements as well as requirements related to the installation of control devices, reporting, and recordkeeping. EPA asserted the Celriver plant did not qualify for the exemption and, even if it did, HCC could not claim this protection because it never applied to EPA for the exemption. In response, HCC argued that EPA's interpretation of the exemption was erroneous and merited no deference. Alternatively, HCC contended that if EPA's interpretation were accepted, HCC should not be held responsible for any violations of the regulations because it lacked fair notice of that interpretation. On cross-motions for summary judgment, the district court sustained

EPA's interpretation of the regulations, but concluded that HCC lacked fair notice of this interpretation both before and after EPA's direct contacts with HCC in 1989. The court therefore refused to find HCC liable for any violations of the regulations.

II.

The Clean Air Act unquestionably provides EPA with broad powers to promulgate regulations necessary to identify and control hazardous air pollutants. See 42 U.S.C.A. §§ 7401-7671q (West 1995 & Supp. 1997). HCC makes no claim that the benzene regulations in any way violate or are contrary to EPA's statutory authority. Cf. Chevron, U.S.A., Inc. v. NRDC, 467 U.S. 837 (1984) (rejecting appellant's contentions that agency's interpretation conflicts with language and legislative history of statute). Nor does the company assert that either the Clean Air Act or the NESHAP contravenes any constitutional provision. Finally, HCC does not contend that EPA's procedures in promulgating the regulations were flawed. Thus, the initial question before us is simply whether EPA's interpretation of its own authorized, and properly promulgated, regulations should be accorded deference.

The Supreme Court has continually reaffirmed that an agency's interpretation of its own regulations is entitled to substantial deference. See, e.g., Thomas Jefferson Univ. v. Shalala, 512 U.S. 504, 512 (1994) ("We must give substantial deference to an agency's interpretation of its own regulations."); Stinson v. United States, 508 U.S. 36, 45 (1993) ("[P]rovided an agency's interpretation of its own regulations does not violate the Constitution or a federal statute, it must be given controlling weight unless it is plainly erroneous or inconsistent with the regulation."). When an agency applies its "regulation to complex or changing circumstances," the Court has explained, this "calls upon the agency's unique expertise and policymaking prerogatives" and courts must "presume that the power authoritatively to interpret its own regulations is a component of the agency's delegated lawmaking powers." Martin v. OSHRC, 499 U.S. 144, 151 (1991).

At least implicitly, HCC acknowledges that generally EPA's interpretation of properly promulgated, statutorily authorized, regulations is entitled to deference. HCC contends, however, that "[t]his is not a

deference case." Brief of Appellee at 22. The company asserts that the plain language of the NESHAP does not permit EPA's interpretation. It further argues that EPA's interpretation merits no deference because the agency assertedly did not espouse its present interpretation when it originally promulgated the regulations, but only "created" that interpretation "during this litigation."

A.

In resolving this question, we begin with the plain language of the regulations. The NESHAP itself does not indicate any intent to limit the meaning of the term "use" to consumption. Indeed, EPA's decision to give "use" a more expansive treatment than that advocated by HCC is consistent with the ordinary meaning of "use." See Black's Law Dictionary 1541 (6th ed. 1990) (defining "use" to include "to make use of, to employ" as well as "to put into action or service, to utilize").

Nor is the agency's broad interpretation nonsensical. After all, recycled benzene is just as likely to create a health threat as new benzene; each time benzene passes through a valve or pipe, it can potentially leak. Regulations designed to reduce the risk posed by this carcinogen should logically treat new and recycled benzene alike. Thus, EPA's interpretation of its own regulatory exemption harmonizes with the purpose of the authorizing statute, the Clean Air Act: "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C.A. § 7401(b)(1) (West 1995). Congress mandated that EPA set emission standards that promote the public health and welfare with "the maximum degree in reduction in emissions of the hazardous air pollutants" subject to the Act, including cancer-causing benzene. 42 U.S.C.A. § 7412(d)(2) (West 1995). A broad reading of "use" certainly best achieves this goal.

Moreover, EPA's interpretation of its exemption accords with the purpose of the exemption itself. As the preamble to the regulations notes, the exemption was designed as a "small plant exemption" intended to exclude "most research facilities, pilot plants, and intermittent users of benzene." 49 Fed. Reg. at 23,510. EPA drafted the exemption in response to comments that the proposed NESHAP

(which contained no exemption) was not cost effective for small plants, explaining:

> EPA believes it is reasonable to exempt plants from the standard when the cost of the standard is unreasonably high in comparison to the achieved emission reductions. Therefore, EPA decided to determine a cutoff for exempting these plants based on a cost and emission reduction analysis.

Office of Air Quality, EPA, Pub. No. 450/3-80-032b, Benzene Fugitive Emissions - Background Information for Promulgated Standards 2-104 (1982) (BID).

The agency recognized that industrial plants with the fewest pieces of equipment, and so the fewest sources of leaks, were probably the least likely to emit emissions. But it determined that it could not define the exemption in terms of number of pieces of equipment or sources of leaks because such an approach "could not be applied readily to small or intermittent users of benzene" whose "facilities often require frequent repiping." BID at 2-104. Instead, EPA conducted studies and found that when the design production of a plant was about 1,000 megagrams per year, the plant contained 87 pieces of equipment and would be expected to emit only about 6 megagrams of benzene per year; applying the proposed regulations to such plants would only result in a reduction of 4 megagrams of benzene emissions per year. EPA concluded that the cost of imposing the regulatory requirements to such small plants was "unreasonably high in comparison to the achieved emission reductions" and so those plants could properly be exempted from the regulatory requirement. Id. (emphasis added).**2**

Accordingly, in formulating the exemption, EPA used the 1,000 Mg cut off rate as a proxy to exempt plants that had so few sources

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2 HCC asserts that this regulatory history only demonstrates that the purpose of the exemption "was to exempt facilities from implementing the standards of the benzene NESHAP where the cost would be unreasonably high." Brief of Appellee at 26 (emphasis added). That argument, of course, overlooks the remainder of the language from the administrative record, which is quoted and emphasized above.

of leaks that they would be expected to emit only 6 megagrams of fugitive benzene per year. The Celriver plant most decidedly does not fall within that category. Rather, it had thousands of sources of benzene leaks (nearly 17,000 as of November 1990) and was one of the largest sources of benzene emissions in the nation during the period at issue in this suit, with annual emissions reaching 226 megagrams (nearly 500,000 pounds). Thus, HCC's Celriver plant was not the kind of plant that EPA envisioned in creating the exemption.

In sum, EPA's interpretation accords with the plain language of the NESHAP, as well as the purposes of the Clean Air Act and of the exemption itself.

B.

Nevertheless, HCC asserts that EPA's interpretation merits no deference because it was one "created" after the fact for this litigation. HCC principally relies on isolated language in the preamble, BID, and EPA correspondence.**3** This scattered language hardly compels the company's interpretation of the regulations.

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3 HCC erroneously asserts that "there are over 100 places in the rulemaking record where EPA uses the terms `use' and `consume' interchangeably." Brief of Appellee at 8. In fact, there are only a few occasions in the rulemaking record in which EPA employs "consume" in lieu of "use" and, as explained in text above, those instances are ambiguous. The additional references on which HCC relies are not contained in the rulemaking record at all. See 42 U.S.C.A. § 7607 (d)(7)(A) (West 1995) (defining rulemaking "record" for purposes of judicial review); 42 U.S.C.A. § 7412(e)(4) (West 1995) (applying § 7607 standards to emissions standards). Rather, they appear in correspondence with various EPA regional offices or state environmental agencies after the NESHAP was promulgated. Many of the references in this correspondence were authored by plant owners and operators, not EPA or other environmental agencies; furthermore, the agencies' use of "consume" in lieu of "use" even in the post-promulgation correspondence is subject to differing interpretations. See infra n.6.

HCC also refers to its interpretation of use as a "single counting" approach and denominates EPA's interpretation as a "multiple counting" approach. Although the district court adopted this nomenclature, it does not appear anywhere in the NESHAP or in the rulemaking record. Accordingly, we do not employ it here.

For example, in the preamble, EPA does occasionally employ the term "consume" in lieu of "use" in a discussion of the operations of pharmaceutical companies. See NESHAP preamble, 49 Fed. Reg. at 23,510. However, as the district court explained, this scarcely proves that EPA limited the meaning of "use" in the regulations to "consume":

> These passages from the [administrative] record . . . do not lead inevitably to the conclusion that EPA intended the word "use" in the exemption to mean only "consume".

Hoechst Celanese, 964 F. Supp. at 976. (emphasis added). Clearly, one type of "use" is "consumption;" EPA does not claim to the contrary. The agency simply asserts that "use" also includes utilization or employment. Although the preamble contains evidence that "use" includes "consumption," it in no way requires the conclusion that "use" is limited to "consumption."

Similarly, EPA describes the exemption in the rulemaking record as establishing a cut off for "a plant design usage or throughput rate of benzene equal to or less than 1,000 Mg/yr per plant" and explains that "throughput" is "determined by a mass balance during the design stages of process operation, accumulating all benzene processed in 1 year." BID at 2-105. HCC asserts that "throughput" in this context can only refer to a "plant's overall net production or consumption . . . not recirculation rates." But again, the district court recognized that "`throughput' and `consumption' are not synonymous . . . . `throughput' can describe, for example, the flow of benzene through equipment like the quench chamber and main still"-- just as EPA asserts.

Finally, numerous EPA letters issued in the summer and fall of 1984, shortly after the initial promulgation of the NESHAP in June 1984, severely undermine HCC's entire post-hoc argument.**4** For

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4 Recognizing the impact of these EPA documents, HCC urges (somewhat inconsistently with its claim that EPA's interpretation is an after-the-fact creation for litigation) that these documents demonstrate EPA's attempt immediately after promulgation of the NESHAP to narrow the exemption by broadening the meaning of "use." Brief of Appellee at 15. To prevail on this argument, HCC would have to have demonstrated that "use" in the NESHAP necessarily meant only "consume." As noted above, the district court concluded and we agree that this conclusion is unwarranted.

example, on August 20, 1984, EPA answered an inquiry from a Texaco plant manager stating that "use" was to be determined by "the overall quantity of benzene used in equipment," not "consumption." On October 5, 1984, EPA told an applicant seeking an exemption, "the 1000 megagrams per year cut off limit is applicable to total processing rates rather than net consumption (usage) or net production, of all affected equipment at an entire plant site." (emphasis in original). That same month, EPA informed another exemption applicant that the "1,000 megagrams per year cut off limit is applicable to total processing rates, rather than net consumption (usage) or net production." A few days later, EPA wrote still another applicant that the "1,000 megagram per year cut off limit is applicable to total processing rates of all affected equipment at an entire plant site." (emphasis in original). The next month, EPA informed its regional offices that "We have determined the cut-off is based on the throughput or processing rate, rather than consumption." There are a number of other contemporaneous letters from EPA to the same effect. In view of this evidence, it is simply impossible to conclude, as HCC argues, that EPA formulated its broad interpretation of the exemption as a strategy for litigation initiated in 1992, eight years after the regulation was originally promulgated.

For all of these reasons, we agree with the district court that EPA's interpretation of its own regulations deserves deference.**5**

III.

The more difficult question is whether, and if so when, HCC was afforded fair notice of the EPA's interpretation.

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5 In reaching this conclusion, we give no weight to the 1995 affidavit of a former EPA employee, Robert Ajax, which was prepared and submitted on HCC's behalf for this litigation. Like similar affidavits from individual legislators, it is entitled to no weight as to the meaning of legislation enacted, or in this case a regulation promulgated, eleven years earlier. See Consumer Prods. Safety Comm'n v. GTE Sylvania, Inc., 447 U.S. 102, 118 n.13 (1980) ("Such history does not bear strong indicia of reliability . . . because as time passes memories fade and a person's perception of his earlier intention may change.").

Due process requires that a party must receive fair notice before being deprived of property. Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306, 314 (1950). Moreover, it is well established in criminal law that no punishment can be imposed without notice. See, e.g., United States v. National Dairy Prods. Corp., 372 U.S. 29, 32-33 (1963); United States v. Bennett, 984 F.2d 597, 605 (4th Cir. 1993). Although the Supreme Court has not directly addressed the question, we have concluded that because civil penalties are "quasi-criminal" in nature, parties subject to such administrative sanctions are entitled to similar "clear notice." See First American Bank v. Dole, 763 F.2d 644, 651 n.6 (4th Cir. 1985). A "regulation[ ] which allow[s] monetary penalties against those who violate [it], . . . must give . . . fair warning of the conduct it prohibits or requires, and it must provide a reasonably clear standard of culpability to circumscribe the discretion of the enforcing authority and its agents." Id. (quoting Diamond Roofing Co. v. OSHRC, 528 F.2d 645, 649 (5th Cir. 1976) (citation omitted)).

To determine if a party has received fair notice, we must examine the relevant facts of each case. See Bennett, 984 F.2d at 605. In this case, that requires separate examination of two time frames: (1) the period from 1984 (when the exemption was originally promulgated) to 1989 (when EPA became aware of the operations of the Celriver plant and directly contacted HCC); and (2) the period after the 1989 contacts between EPA and HCC until 1992 (when HCC finally complied with the regulation). We address each period in turn.

A.

In support of its claim that HCC had fair notice of EPA's broad interpretation of the regulations from the time they were originally promulgated in 1984, EPA offers two interrelated arguments.

1.

First, the agency asserts that the plain language of the NESHAP and the rulemaking record should have put HCC on notice that the Celriver plant did not qualify for an exemption. For example, EPA contends that HCC should have known that its Celriver plant with nearly 17,000 pieces of equipment and substantial benzene emissions

could not possibly be exempt. In support of this argument, EPA points out that "use" is a broad term, and that what is at issue here is an exemption and exemptions are to be narrowly construed. See, e.g., Duquesne Light Co. v. EPA, 698 F.2d 456 (D.C. Cir. 1983) (narrowly construing a Clean Air Act exemption). EPA also notes that the rule-making record indicates that this was intended to be a "small plant" exemption designed to accommodate companies with limited use and emissions of benzene. See NESHAP preamble, 49 Fed. Reg. at 23,510. EPA maintains that if HCC had any doubt on the matter because of EPA's reference to "consume" in lieu of "use" in some portions of the rulemaking record, it had an obligation to contact the agency for clarification. See, e.g., Texas E. Prods. Pipeline Co. v. OSHRC, 827 F.2d 46, 50 (7th Cir. 1987) (finding fault with company's failure to make any inquiry of the administrative agency responsible for the regulations at issue).

EPA's argument is not without force and in another case might well carry the day. Generally, "ignorance of the law or a mistake of the law is no defense," Cheek v. United States, 498 U.S. 192, 199 (1991), and a claim of lack of notice "may be overcome in any specific case where reasonable persons would know that their conduct is at risk." Maynard v. Cartwright, 486 U.S. 356, 361 (1988). However, as EPA recognizes, "it is crucial to examine the particular situation of the defendant, and whether it lacked reasonable notice." Brief of Appellant at 29 (emphasis in original). Examination of the particular facts of this case convinces us that, prior to 1989, HCC did not have fair notice of the EPA's broad interpretation of the term "use."

Although as noted above, nothing in the NESHAP itself or the rule-making record forecloses EPA's interpretation of the exemption, at the same time nothing mandates it. Indeed, some of the language in the preamble (e.g., EPA's references to "consume" in lieu of "use") supports HCC's narrower interpretation. Moreover, as the district court noted, just because the Celriver plant was not a small plant with few emissions, it was not necessarily put on notice that it was subject to the regulations, given that even under EPA's interpretation of "use," some plants with many pieces of equipment and significant emissions theoretically could be exempt. Thus, we cannot hold that

the regulations, their preamble, or purpose clearly put HCC on notice that the Celriver plant did not qualify for an exemption.**6**

We need not determine if, as EPA maintains, the NESHAP and rulemaking record at least provided HCC with "reason to know that its exemption claim rested on extremely shaky grounds" and so triggered an obligation to ask for clarification of the meaning of "use." Brief of Appellant at 31. If HCC did have such an obligation, it fulfilled it by communicating with the Texas Air Control Board (TACB), the state agency that EPA had empowered to implement and enforce the NESHAP in Texas.

The undisputed facts are as follows: in August 1984 (a few months after promulgation of the NESHAP), HCC sought information from the TACB as to whether an HCC plant located in Bishop, Texas, which also recycled benzene, was exempt under 40 C.F.R. § 61.110(c)(2). The TACB referred HCC to an August 1984 letter that EPA's Region 6 office sent to a Texaco facility in Texas that used recycled benzene. This letter stated that "use is not meant to imply consumption, but rather is meant to reflect the overall quantity of benzene used in equipment at a facility." This letter does seem, as EPA maintains, to support EPA's broad definition of "use." Indeed, contemporaneous HCC internal communications indicate that HCC itself so interpreted EPA's response; for example, one HCC official hand wrote on the Texaco letter "Read it and weep" and another HCC official wrote a memo noting "EPA recently advised . . . that `use' of benzene includes recycle." However, the TACB interpreted EPA Region

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6 HCC also contends, and the district court held, that EPA regional offices assertedly interpreted the exemption inconsistently and that this provides additional support for the company's claim that EPA failed to provide it fair notice. See Hoechst Celanese, 964 F. Supp. at 981. Some of the EPA documents on which HCC relies can be read, as the company asserts, as providing conflicting interpretations of "use." Most, however, can at least as easily be read as consistently requiring EPA's broad interpretation whenever that question was raised and/or relevant. But given our conclusion that EPA failed to provide fair notice to HCC from 1984 to 1989, we need not reach the question of whether these documents constitute a proper additional basis for a grant of summary judgment on that question.

6's letter to Texaco as indicating that overall inventory was the determinant factor. Thus, the TACB concluded that the Bishop plant qualified for an exemption because it did not maintain an inventory of more than 1,000 megagrams of benzene. In December 1984, the TACB sent a short letter to HCC informing the company that the Bishop plant was "exempt from the requirements of Section 61.112," the section mandating source compliance with the NESHAP. Although EPA Region 6 received a copy of that letter, it took no action to rescind or invalidate the exemption. HCC then concluded that the Celriver plant, which used benzene in a manner similar to the Bishop plant, was also exempt.

In addition to the Bishop plant, HCC operated another plant in Pampa, Texas. That plant, like the Celriver and Bishop plants, continually recycled benzene through a closed loop system but because the Pampa plant "consumed" more than 1,000 megagrams of benzene per year even under HCC's interpretation of "use," it was not exempt from the NESHAP requirements. For this reason, in September 1984, HCC applied to the TACB for a two-year waiver from compliance with the NESHAP for the Pampa plant so that HCC could "reduce the quantity of benzene consumed in the plant to less than 1,000 megagrams" and thus become exempt. In April 1985, the TACB approved the waiver request; copies of that request and TACB's approval were sent to EPA Region 6, which took no action to invalidate the waiver.

These undisputed facts demonstrate that, although HCC made no direct inquiry as to the application of the exemption to the Celriver plant, it did not fail to make any inquiry as to the meaning of the NESHAP. Cf. Texas E. Prods., 827 F.2d at 50. Rather, it asked TACB for an exemption and waiver of the regulation for two HCC plants located in Texas, which recycled benzene just as the Celriver plant did. In response, TACB issued the requested exemption and waiver, with copies to EPA's Region 6. We recognize that although Region 6 received copies of TACB's letters granting the exemption and waiver to the Bishop and Pampa plants respectively, those letters were short and may not have fully informed the agency of their impact. But in addressing whether a party has received fair notice, we look at the facts as they appear to the party entitled to the notice, not to the agency. On the basis of the TACB's actions and the inaction of EPA Region 6, the company had reason to believe that its interpre-

tation of the exemption -- equating "use" to"consumption" -- was accurate. When these facts are viewed in the context of a rulemaking record that included some references to "use" in lieu of "consume," we must conclude that HCC did not receive fair notice of EPA's broader interpretation of the term in the 1984-89 period.

2.

As a corollary to the above argument, EPA asserts that the NESHAP required a plant owner to apply for an exemption and file an initial report and that HCC's failure to do either prevents it from now claiming a right to the exemption. As noted above, immediately after EPA issued the NESHAP in 1984, numerous other plant owners inquired as to the meaning of "use," applied for exemptions, and filed initial reports. HCC, in contrast, never applied for an exemption or filed reports.

The district court held that HCC's contacts with TACB constituted an "indirect[ ]," informal application for an exemption for the Celriver plant. Hoechst Celanese, 964 F. Supp. at 979. We cannot agree. Whatever the authority of the TACB or EPA Region 6 in Texas, they had no authority to grant an exemption in South Carolina and no ability to grant an exemption (by implication) to a plant about which they knew nothing. Thus, if the NESHAP had clearly mandated that the owner of a plant seeking an exemption apply for the exemption, HCC's Celriver plant failed to meet this requirement.

Accordingly, we turn again to the relevant regulatory language. The NESHAP provides in pertinent part:

> Any equipment in benzene service that is located at a plant site designed to produce or use less than 1,000 megagrams of benzene per year is exempt from the requirements of § 61.112.

§ 61.110(c)(2) (emphasis added). Thus, the plain language of the regulation suggests that the exemption is self-executing and provides no discretion to the EPA administrator to determine whether or not to grant an exemption. Section 61.110(c)(1) does state that "[i]f an

owner or operator applies for one of the exemptions in this paragraph," he must maintain certain records. (emphasis added). But it is impossible to conclude that this reference clearly requires a plant owner or operator to file an application for an exemption, in view of the absence of any explicit directive in § 61.110(c)(2), or any instructions in any other portion of the regulations as to how, where, when, or in what form such applications for exemptions are to be made. We note that elsewhere in the same regulations when EPA requires an application for a waiver of the NESHAP's requirements, it specifies in detail the procedures for the application. See 40 C.F.R. §§ 61.10(b), 61.11 (1996); see also § 61.112(c) (1996) (setting out procedures for application for an alternative method for attaining compliance). Thus, we do not believe the NESHAP provides fair notice that a plant owner or operator must apply for an exemption.

Nor do we believe the regulations provide fair notice that the owner of exempt equipment must file an initial report. The NESHAP requires an "owner or operator of [an] existing source" of benzene emissions to file an initial report within 90 days of promulgation of the regulations. 40 C.F.R. § 61.10(a) (1996). EPA asserts that the exemption in § 61.110(c)(2) does not allow an owner or operator to avoid the initial report requirement because that exemption only exempts "equipment," i.e., "sources," and does not eliminate reporting obligations imposed in other portions of the NESHAP on owners and operators of such equipment. EPA may be correct that this is what is intended. But we cannot hold that the plain language of § 61.10(a) provides clear notice of this intent. As EPA concedes, the reporting requirement is linked to the exemption provision; by requiring exempt companies to file reports, EPA can determine continued eligibility for that exemption. Since we have determined that HCC lacked fair notice of the need to apply for an exemption, we can not now hold it should have known to submit reports to monitor continued eligibility for an exemption.

In sum, we agree with the district court that prior to 1989, HCC did not have fair notice of EPA's interpretation of the NESHAP or of a regulatory obligation to apply for an exemption or file reports.

B.

Finally, we must determine whether HCC continued to lack fair notice after 1989, when EPA's Region 4 office, the office responsible

for enforcement of the NESHAP in South Carolina, directly informed officials at HCC's Celriver, South Carolina plant of the proper interpretation of the regulations.

1.

On June 13, 1989, EPA Region 4 wrote the HCC official responsible for regulatory compliance at the Celriver plant, informing him that "[i]f benzene is recycled" then "use" for purposes of the exemption must be calculated on the basis "of total cumulative flow through the process rather than net benzene consumption or usage." The EPA letter stated that "it appears that [HCC] may be subject" to the NESHAP requirements and asked HCC to forward information necessary "to determine the full extent and duration of all benzene emissions" within thirty days. Two weeks later, on June 26, HCC responded. Asserting that the Celriver plant recycled benzene and so under HCC's definition of "use," i.e., consumption, the plant was exempt, the company did not forward the requested information.

However, on July 28, 1989, senior HCC Celriver officials met to discuss the EPA's June 13 letter. Minutes of that July meeting indicate that by that time, HCC officials well understood that EPA did not accept the company's interpretation of "use." The minutes of the July meeting note in pertinent part:

> The EPA standard for fugitive benzene emissions may be applied to Celriver. The limit of 1000 megagrams benzene per year (2,205,000 pounds per year) is applied to throughput instead of consumption. Process throughput or recycle is considerably greater than this limit. Stringent EPA controls would thus apply to existing process equipment. The full implication of this interpretation must be determined and steps taken to meet compliance.

(emphasis added).

Moreover, unaware of HCC's internal discussions of the matter, on August 18, 1989, EPA Region 4 responded to HCC's June 26 letter noting that "it appears that you are unaware of EPA's interpretation

of benzene usage as the term is used to determine applicability." In this letter, EPA proceeded to explain carefully and in no uncertain terms that benzene usage equaled "total cumulative flow through equipment in benzene service rather than net consumption." The letter contained an explicit example of how to determine usage in the exemption and asked HCC to forward the information originally requested in mid-June within thirty days. In September, still noting its objection to EPA's interpretation, HCC finally forwarded the requested information -- pursuant to EPA's interpretation of "use," the Celriver plant's use of benzene exceeded 2.5 million megagrams of benzene per year. On February 20, 1990, EPA Region 4 issued HCC Celriver a notice of violation and in April 1990, HCC submitted a plan to redesign its Celriver plant to bring it into compliance with the NESHAP.

In short, HCC received in June 1989 a letter from EPA Region 4 unequivocally setting forth the agency's interpretation, and the record establishes that at least by July 1989 HCC well understood EPA's position. Moreover, in August 1989 EPA Region 4 expressly reiterated the interpretation stated in its June letter. Further, these 1989 letters from EPA Region 4 to HCC Celriver must be regarded as representing the agency's authorative interpretation of the benzene exemption as it affected the Celriver plant. In its appellate brief, HCC itself concedes as much. See Brief of Appellee at 45 n.29 ("HCC does not dispute the fact that EPA Region IV is authorized to communicate the agency's interpretations of its own regulations to the regulated community.").

2.

In spite of these uncontroverted facts, the district court held that HCC "did not have actual notice" of EPA's interpretation "in the summer of 1989." Hoechst Celanese, 964 F. Supp. at 984. The court reasoned that EPA Region 4's 1989 letters to HCC were contrary to "statements" in the rulemaking record (e.g., "consume" in lieu of "use") and to other letters from EPA and state environmental agencies interpreting the NESHAP. Id. For this reason, the court concluded that HCC had a "legitimate basis for believing" that the 1989 letters from EPA Region 4 -- the region charged with supervision of the Celriver plant -- did not "speak[ ] for the Administrator" of the EPA.

Id. The district court further held that even the notice of violation could "not be deemed as having provided Hoechst Celanese an authoritative interpretation of the benzene exemption." Id.

With regard to the asserted conflict between EPA Region 4's 1989 letters to HCC Celriver and statements in the rulemaking record, the district court's conclusion is at odds with its earlier holding deferring to EPA's interpretation of the NESHAP. The district court initially held that it should and would defer to EPA's interpretation inter alia because the rulemaking record did not conflict with that interpretation. We believe, as explained above, that the district court correctly analyzed this issue at the outset of its opinion, when it concluded that "[t]hese passages from the record . . . do not lead inevitably to the conclusion that EPA intended the word `use' in the exemption to mean `consume.'" Id. at 976. Accordingly, we necessarily must reject the argument that statements in Region 4's 1989 letters to HCC conflicted with the rulemaking record.

Nor can HCC rely on letters from EPA and state environmental agencies to other owners or operators about other facilities that allegedly adopt an interpretation of the exemption contrary to that which EPA directly conveyed to HCC Celriver in 1989. First, no communication from EPA Region 4 -- the office charged with enforcement of the NESHAP in South Carolina -- conflicts with Region 4's definitive 1989 letters to HCC Celriver.**7**

As to the asserted contrary interpretation of "use" by other EPA offices or state agencies, HCC presents no evidence that the company knew of any contrary interpretations issued during or after 1989. Without contemporaneous knowledge of and reliance on these allegedly inconsistent interpretations, HCC had no reason to believe EPA

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7 Thus, HCC's reliance on Region 4's communications with the Department of Energy's Savannah River Site (SRS) is misplaced. Based on information SRS initially supplied in 1989, the EPA could not determine whether the not-yet-built consolidated incineration facility (CIF) would be exempt. Subsequently, in 1995, upon learning that the CIF would recirculate benzene in amounts greater than 1,000 mg/yr, EPA concluded the operation would be subject to the benzene NESHAP.

Region 4 was providing it with anything other than EPA's definitive interpretation of the NESHAP.

Finally, the fact that previous letters from state environmental agencies concerning HCC plants in Texas and Virginia**8** assertedly conflict with Region 4's 1989 letters to HCC Celriver does not in anyway undermine the force of the latter. Whether a state environmental agency had previously supplied advice that may appear to conflict with EPA Region 4's definitive instruction to the Celriver plant in the summer of 1989 is immaterial. In 1989, EPA Region 4, indisputably the office responsible for enforcement of the NESHAP in South Carolina, provided the HCC Celriver, South Carolina plant with unequivocal, actual notice as to how the regulation pertained to that plant's operations, i.e., benzene usage applied to "total cumulative flow through equipment in benzene service rather than net consumption." It is well established that "even if the agency has not given notice in the statutorily prescribed fashion, actual notice will render that decision harmless." Riverbend Farms, Inc. v. Madigan, 958 F.2d 1479, 1487 n.7 (9th Cir. 1992); Shelton v. Marsh, 902 F.2d 1201, 1206 (6th Cir. 1990) (same); New York v. Bowen, 811 F.2d 776, 780 (2d Cir. 1987) (same); Small Refiner Lead Phase-down Task Force v. EPA, 705 F.2d 506, 549 (D.C. Cir. 1983) (same) (dicta). See also Maryland v. Antonelli Creditors' Liquidating Trust, ___ F.3d ___, No. 96-1111, 1997 WL 523681 (4th Cir. Aug. 26, 1997); Greene v. Whirlpool Corp., 708 F.2d 128, 131 (4th Cir. 1983).

It would be another matter if different officials within EPA Region 4 had issued conflicting interpretive letters to HCC Celriver. But that is not the case here. The HCC Celriver plant received but one message from EPA Region 4 -- recycled benzene must be counted in determining how much benzene a plant is designed to use. Letters from the EPA regional office responsible for the State of South Carolina -- regardless of any conflict with previous guidance received by another HCC plant from an agency with no authority in South Carolina -- placed the HCC Celriver plant on actual notice of EPA's interpretation.

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8 There is little evidence in the record as to the circumstances of the Virginia exemption. However, there is no evidence that any EPA regional office approved that exemption.

For these reasons, we must conclude that EPA Region 4's 1989 communications with HCC Celriver not only should have put the company officials at the Celriver plant on notice, but did put them on notice of EPA's interpretation of the NESHAP. Minutes from HCC's July 28, 1989 meeting convened after receipt of the first EPA letter supports this conclusion. These minutes unequivocally demonstrate that HCC officials understood that "[t]he limit of 1,000 megagrams benzene per year . . . is applied to throughput instead of consumption." Moreover, if HCC had had any remaining doubts after receipt of EPA's first letter, EPA's second (August 1989) letter would have eliminated them.

3.

We also reject the district court's alternative grounds for refusing to find HCC Celriver liable for any violations of the NESHAP after August 1989. The district court apparently believed that imposition of liability was inappropriate for two additional reasons: (1) EPA did not object to the redesign schedule that HCC Celriver submitted in April 1990 to bring the plant in compliance with the NESHAP and the company made significant expenditures pursuant to that plan to reduce overall benzene use by August 1992; and (2) if HCC had applied for a waiver for the Celriver plant, it would likely have received one. Hoechst Celanese, 964 F. Supp. at 984-85.

At oral argument, HCC conceded, as it had to, that the present litigation solely addresses liability. Congress has directed that a court should address a "violator's full compliance history and good faith efforts to comply" not at the liability phase of the litigation but at the penalty phase. See 42 U.S.C.A. § 7413(e) (West 1995); see also United States v. B & W Inv. Props., 38 F.3d 362, 368 (7th Cir. 1994) (applying § 7413(e) criteria in penalty deliberations). Thus, the district court erred when it factored in compliance efforts as a reason for denying liability.

Moreover, nothing in the NESHAP provides that upon receiving a proposed compliance schedule, EPA is deemed to accept that schedule if the agency does not respond within a certain period of time. Nor did EPA's lack of response to the proposed compliance schedule preclude it from imposing civil penalties on HCC. The only possible

legal basis for such a result would be an estoppel of some sort, and it is well-established that with rare exceptions"equitable estoppel will not lie against the Government as it lies against private litigants." OPM v. Richmond, 496 U.S. 414, 419 (1990); see also United States v. Agubata, 60 F.3d 1081, 1083 (4th Cir. 1995), cert. denied, 116 S. Ct. 929 (1996).

Finally, HCC cannot rely on the NESHAP waiver provision which states:

> Based on the information provided in any request . .. the Administrator may grant a waiver of compliance with a standard for a period not exceeding two years after the effective date of the standard.

40 C.F.R. § 61.11(a) (1996) (emphasis added). The regulatory language unambiguously provides that the grant of a waiver is within the EPA Administrator's discretion. EPA might -- or might not -- have granted the HCC Celriver plant a waiver if the plant had not met NESHAP's standards within ninety days, but HCC had no right to expect one. We will therefore not presume here that the company would have received a waiver.

Officials at the HCC Celriver plant had actual notice of EPA's interpretation of the NESHAP at least by the time they received EPA's August 1989 letter. The NESHAP mandates full compliance from an existing source within ninety days of the standard's effective date. See 40 C.F.R. § 61.05(c) (1996). Since HCC lacked fair notice of EPA's interpretation at the time of promulgation of the benzene NESHAP, the ninety-day period does not commence until HCC received actual notice of that interpretation in August 1989. By failing to comply with the NESHAP's requirements within ninety days after receiving EPA's August 1989 letter, HCC Celriver necessarily violated the regulations. These violations continued at least until August 1992. We remand the case to the district court for consideration of the proper penalties, if any, for those violations.

IV.

We affirm the district court's order in all respects, except as to whether after August 1989, HCC Celriver had notice of EPA's inter-

pretation of the NESHAP exemption. We hold that by August 1989, EPA had provided HCC actual notice that the Celriver, South Carolina plant did not qualify for that exemption. We remand the case to the district court so that it can determine if, and in what amount, penalties should be imposed for the post-August 1989 violations of HCC's Celriver plant.

No. 96-2003 - AFFIRMED IN PART AND REVERSED AND REMANDED IN PART

No. 96-2051 - AFFIRMED

NIEMEYER, Circuit Judge, concurring in part and dissenting in part:

I concur in Parts I., II., and III.A., but I find that I must dissent from Part III.B. I believe not only that the regulatory scheme was ambiguous but also that the EPA interpreted its regulations with considerable ambivalence, denying any person seeking to comply with them a consistent and clear course to follow. To penalize a company that, by concession of the majority opinion, was not given fair notice of any EPA interpretation at least until 1989 and then thereafter chose to follow one EPA Region's interpretation over another would be, in my judgment, fundamentally unfair. I have no difficulty with enforcing any consistent and rational EPA interpretation prospectively, but to impose penalties in the circumstances of this case is tantamount to punishment on the unfocused whim of a bureaucracy that could not itself agree on the proper reading of its own regulation.

The Clean Air Act, 42 U.S.C. § 7401 et seq., creates a diverse regulatory scheme to lessen air pollution and confers broad power on the EPA to draft regulations to implement the statute. In 1984, the EPA published regulations to control the emission standards for equipment leaks of benzene, requiring industrial plants producing or using benzene to monitor for leaks, to repair leaks, and to install equipment to capture benzene emissions. The regulations also impose reporting and record keeping requirements. Violations are subject to civil penalty. Intending to exempt small volume producers and users of benzene because of cost concerns, the regulations exempt those plants that are designed "to produce or use less than 1,000 megagrams of benzene per year." 40 C.F.R. § 61.110(c)(2) (emphasis added). The issues in

this case are whether Hoechst Celanese's Celriver (South Carolina) Plant produces or uses 1,000 megagrams of benzene per year and whether the EPA's interpretation of "produces or uses" was sufficiently clear to Hoechst Celanese in 1989 so as to justify imposing on it penalties for not complying with an EPA official's interpretation of the regulation within 90 days.

Reading the regulation on its face, the words "produces or uses" are complementary terms designed to provide a basis of measurement for the amount of benzene manufactured by or employed at a plant. The amount of benzene that a plant produces would seem to be a straightforward calculation measured by the amount of benzene that exits from a plant's manufacturing process. To measure the amount of benzene that a plant "uses" in a year would appear to require a measurement of the amount of benzene introduced into the manufacturing process during the course of a year. This natural reading would thus include in the amount all inventory of benzene in use at a plant during the entire year plus any amounts consumed by the process. If that total were less than 1,000 megagrams per year, one would expect that the plant would be exempt from regulation.

At different times and in different contexts, the EPA has shared in part my natural reading of the regulation. When the EPA first published its regulations, it appears to have assumed that its own regulations were to be read so that "use" means "consumption." This is reflected in the preamble to the regulation as originally published, where the EPA stated:

> The possibility that pharmaceutical operations could be adversely affected by the standard is very small. This is true for several reasons. First, most pharmaceutical plants use very little benzene. According to estimates contained in Market Input/Output Studies - Benzene Consumption as a Solvent (EPA-560/6-77-034, October 1978, p. 41), 1978 benzene consumption by pharmaceutical manufacturers was about 0.72 Gg. No companies consumed more than 1,000 Mg/yr in 1978. The commenter states that they consumed about 325 Mg/yr during 1981. Thus, it is unlikely that pharmaceutical operations would be affected by the standard because the final standard exempts equipment at plant sites

> that are designed to produce or use 1,000 Mg/yr or less of benzene. Second, Benzene consumption by the pharmaceutical industry is declining rapidly. The market input/output study just noted estimates that consumption declined from 2.14 Gg in 1976 to 0.72 Gg in 1978, a decline of about 66 percent over the 2-year period.

49 Fed. Reg. 23,510 (June 6, 1984) (emphasis added). But when individual representatives of the EPA interpreted EPA regulations, they recognized that if benzene was introduced into a manufacturing process and exited it, the "throughput" should be the basis for measurement in determining "use." For example, on October 16, 1984, an internal memorandum from the EPA Standard Development Branch to another section provided:

> As you requested, I will articulate our position on the 1,000 Mg/yr plant site cut-off in the benzene equipment leak standard. This cut-off is based on an analysis showing plants having few [pieces of] equipment in benzene service should not be covered by the standard. This analysis relates the low number of [pieces of] equipment to a process rate in Mg/yr. This process rate is not based on consumption of benzene but rather throughput through the equipment in all process units of a plant site. The standard requires owners/operators to demonstrate the design capacity for each process unit in a plant, and we should sum these capacities and compare this sum to the 1,000 Mg/yr.

(Emphasis added). This position was reiterated a month later by the EPA's Office of Air Quality Planning and Standards which issued a memorandum to all EPA Regional Air Program Branch Chiefs as follows:

> The question is whether the cut-off total is based on consumption or processing rate. We have determined the cut-off is based on the throughput or processing rate, rather than consumption.

While various persons at the EPA were debating whether "consumption" of benzene or the "throughput" was to be the basis for measure-

ment, the EPA Regional Director from Region VI took the position that the benzene used was to be quantified in the same way as any inventory of a plant normally would be quantified:

> After review of [the regulatory provision], and based on our discussion with Headquarters' staff, we differ from you [Texaco] in our interpretation of the provision. It is EPA's position that the word use is not meant to imply consumption, but rather is meant to reflect the overall quantity of benzene used in equipment at a facility. In determining the environmental, health, economic and energy impacts in setting the benzene standard, estimates were based on the number of pieces of equipment utilizing benzene and the quantity of benzene in use, rather than on the overall plant consumption (conversion) rate of benzene. Therefore, to determine if a plant produces or uses greater than 1000 megagrams per year of benzene, the total quantity of benzene in use at the facility needs to be considered, not the consumption.

(Emphasis in original). Region VI, thus, required the amount of benzene used to be measured by the "total quantity in use" at the facility - i.e., an inventory measurement. This letter, originally written to Texaco, was provided to Hoechst Celanese by the Texas Air Control Board in the course of giving Hoechst Celanese an exemption for its Bishop Plant in Texas, as it was authorized to do under the Act.

The EPA thus had at least three different approaches for measuring use: (1) the consumption of benzene in a year, (2) the throughput of benzene through a plant for a year, and (3) the total quantity in use at the plant.

In June 1989, the EPA Regional Director in Region IV, which included jurisdiction over Hoechst Celanese's Celriver Plant, wrote Hoechst Celanese that the Celriver Plant "may be subject" to benzene regulation and requested data on Celriver's benzene "throughput on an annual basis." When Hoechst Celanese responded that the Celriver Plant was exempt because it consumed less than 1,000 megagrams per year, the Region IV Director sent a letter stating that "it appears that you are unaware of EPA's interpretation of benzene usage as the

term is used to determine applicability." The Region IV Director then explained:

> [B]enzene usage is intended to mean total cumulative flow through equipment in benzene service rather than net consumption[.] [Y]ou reported your benzene usage for the years 1984 through 1989 in terms of the amount of benzene added to maintain the levels in your closed recirculation system. Therefore, the paragraph below provides an example of how to calculate benzene usage for a hypothetical example. After reviewing the example, you should have a better understanding of how the term benzene usage is to be interpreted.

The letter then described how in a closed recirculation system, the benzene should be measured at a single point so that it is counted every time it passes a fixed point. The Region IV Director considered that this form of measurement was an acceptable interpretation of "throughput."

Up until this point, the EPA as an agency had not addressed how to measure benzene in a closed recirculation system. While the EPA Region VI Director applied the regulation to a closed system by directing the measurement of the "total quantity in use" at the plant, the Region IV Director was interpreting it as the rate of flow through a single point in a closed system. Thus, Region IV proposed recounting the benzene every time it passed the single point. EPA Region IV did not, however, explain how many measuring points should be utilized. In a complex recirculation system made up of a grid of thousands of pieces of equipment, as was involved at the Celriver Plant, there are theoretically an unlimited number of measuring points at each joint and valve. Under this method, virtually any plant with a closed recirculation system would never qualify for the 1,000-megagram-per-year usage exemption.

While I agree with the majority that Hoechst Celanese had notice of the position of the EPA Region IV in August 1989, this notice should not, against the background of inconsistent EPA interpretations over time and throughout the different regions, constitute a definitive agency-wide EPA notice such that penalties could be imposed for non-compliance with one interpretation. For these rea-

sons, I firmly believe that the district court properly concluded that the 1989 Region IV notice should not be considered the "authoritative interpretation" of the EPA.

I would go yet further and question whether the Region IV Director's notice is at all meaningful in view of the ambiguity about his interpretation.

For the foregoing reasons, I would affirm the district court's findings in their entirety.